Summary of Refinitiv vs. BBG

Siddharth Engineer

6/30/2021

Intel 5-year:

```r
library(readxl)
```

```
## Warning: package 'readxl' was built under R version 4.0.3
```
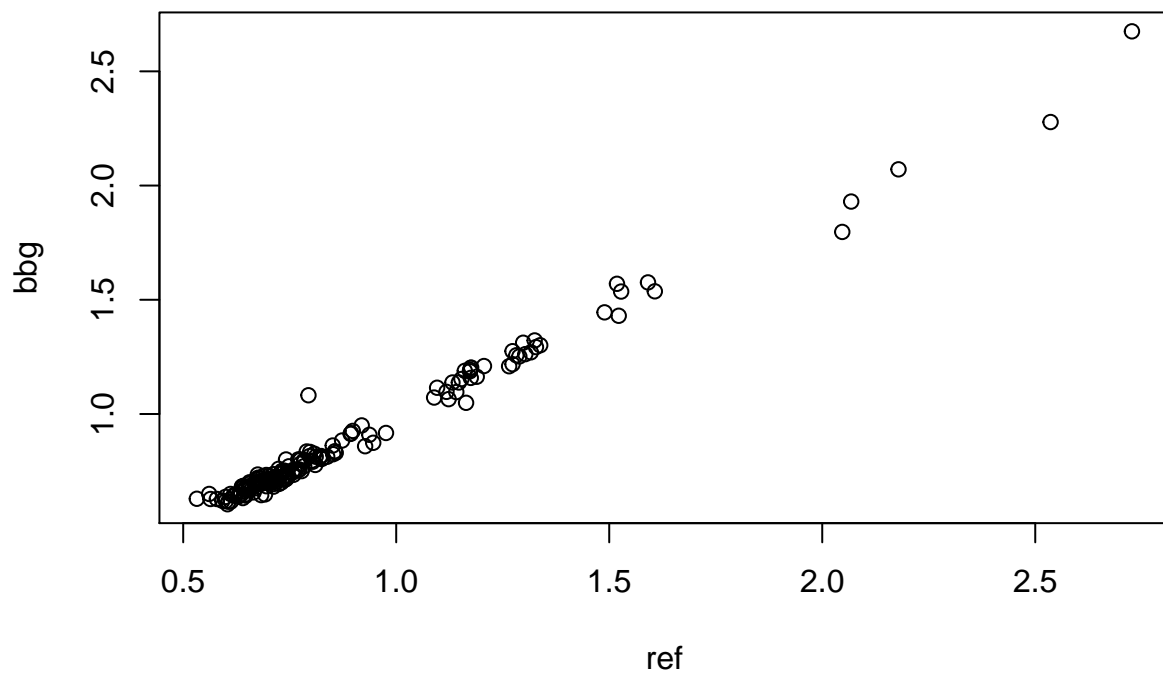
```r
data <- read_excel("C:/Users/ME/OneDrive/Desktop/Raw data/BBG-Eikon Comparison.xlsx")
```

```
## New names:
## * '' -> ...1
## * '' -> ...14
## * '' -> ...15
```

```r
ref = data$'Intel 5Y Eikon'
bbg = data$'Intel 5Y BBG'
bbg = as.numeric(bbg)
```
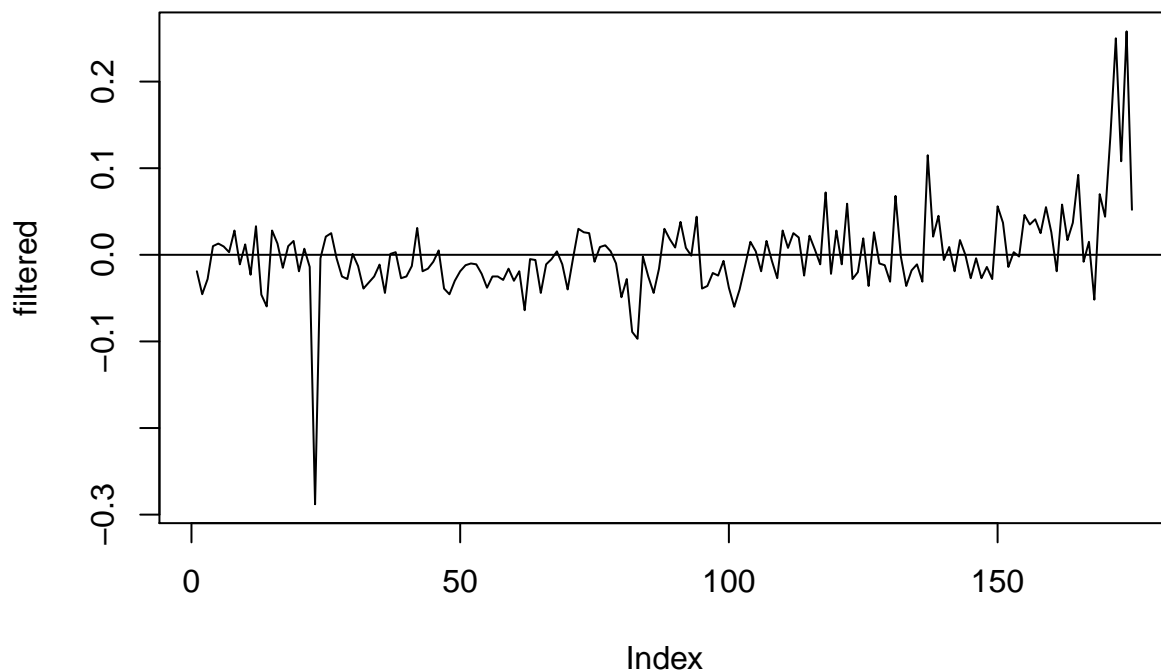
```
## Warning: NAs introduced by coercion
```

```r
plot(ref, bbg)
```

```
unfiltered = ref - bbg
filtered = c()
count = 0
for(x in unfiltered){
  if(!is.na(x)){
    filtered[count] = x
    count = count + 1
  }
}

plot(filtered, type="l")
abline(h=0)
```

```r
mean(filtered)
```

```
## [1] -0.00042
```

```r
sd(filtered)
```

```
## [1] 0.04878912
```

```r
t.test(filtered, alternative = "two.sided", mu=0, conf.level=0.95)
```

```
##
##  One Sample t-test
##
## data:  filtered
## t = -0.11388, df = 174, p-value = 0.9095
## alternative hypothesis: true mean is not equal to 0
## 95 percent confidence interval:
##   -0.007699193  0.006859193
## sample estimates:
## mean of x
##   -0.00042
```

```r
cor(ref, bbg, use="complete.obs")
```
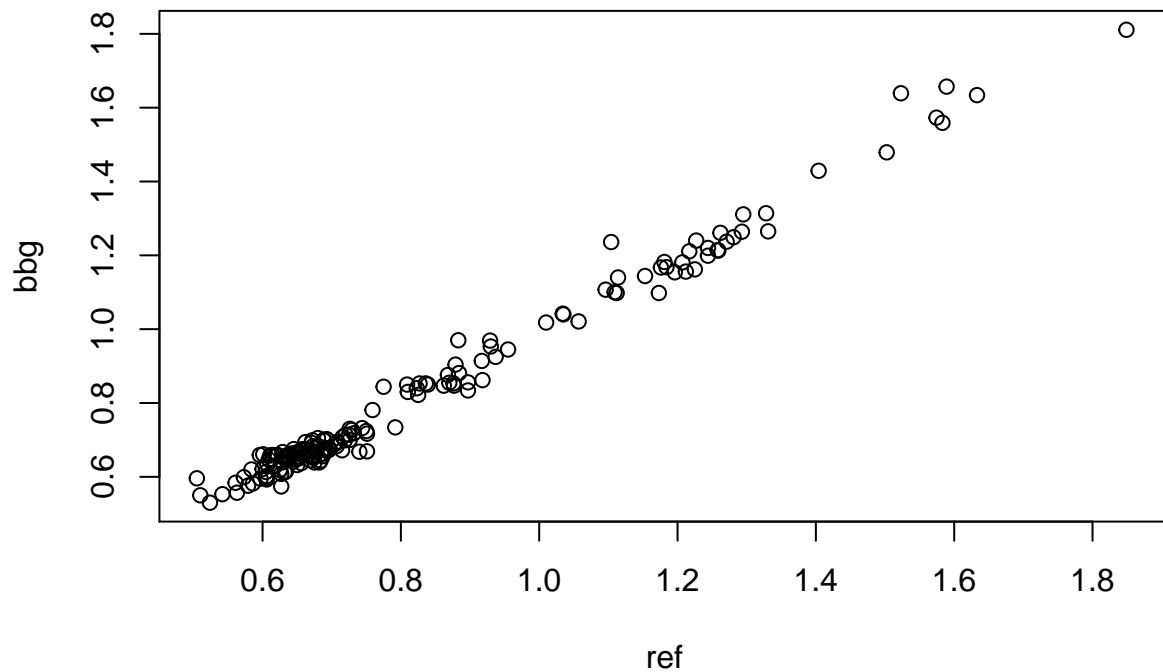
```
## [1] 0.9926513
```

Nike 5-year

```r
library(readxl)
data <- read_excel("C:/Users/ME/OneDrive/Desktop/Raw data/BBG-Eikon Comparison.xlsx")
```

```
## New names:
## * '' -> ...1
## * '' -> ...14
## * '' -> ...15
```

```r
ref = data$'Nike 5Y Eikon'
bbg = data$'Nike 5Y BBG'
bbg = as.numeric(bbg)
```

```
## Warning: NAs introduced by coercion
```
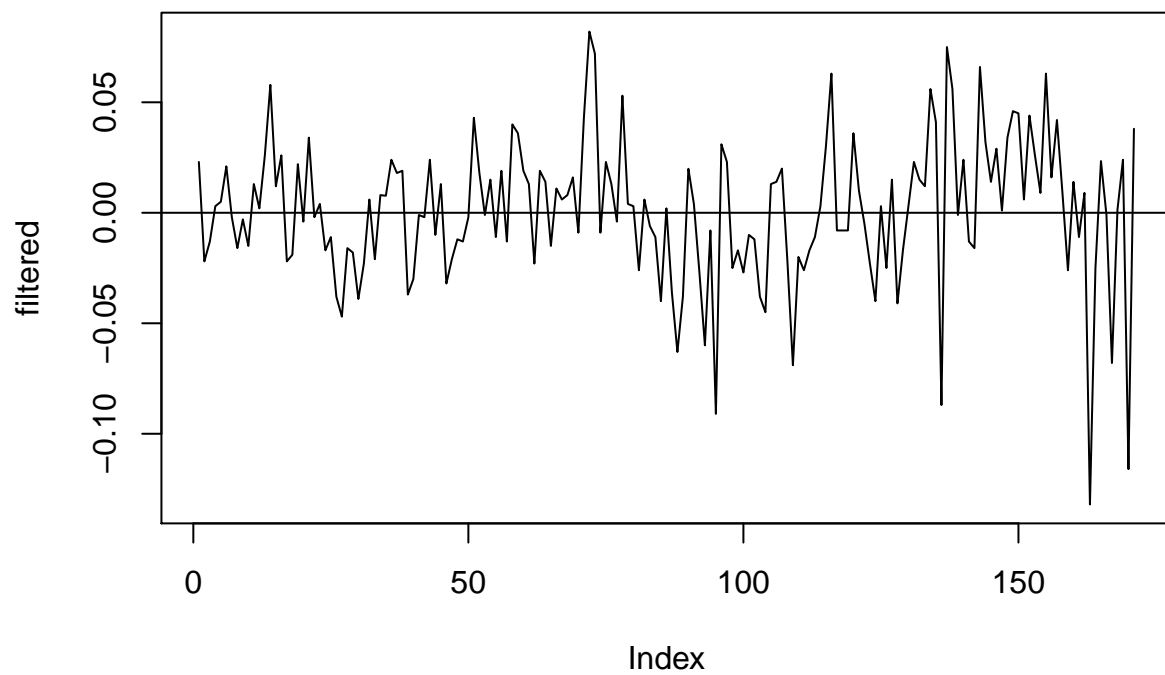
```r
plot(ref, bbg)
```

```r
unfiltered = ref - bbg
filtered = c()
count = 0
for(x in unfiltered){
  if(!is.na(x)){
    filtered[count] = x
    count = count + 1
  }
}

plot(filtered, type="l")
abline(h=0)
```



```r
mean(filtered)
```

```
## [1] 0.0006976608
```

```r
sd(filtered)
```

```
## [1] 0.03255755
```

```r
t.test(filtered, alternative = "two.sided", mu=0, conf.level=0.95)
```

```
##
##  One Sample t-test
##
## data:  filtered
## t = 0.28021, df = 170, p-value = 0.7797
## alternative hypothesis: true mean is not equal to 0
## 95 percent confidence interval:
##  -0.004217124  0.005612445
## sample estimates:
##    mean of x
## 0.0006976608
```

```r
cor(ref, bbg, use="complete.obs")
```

```
## [1] 0.9928557
```
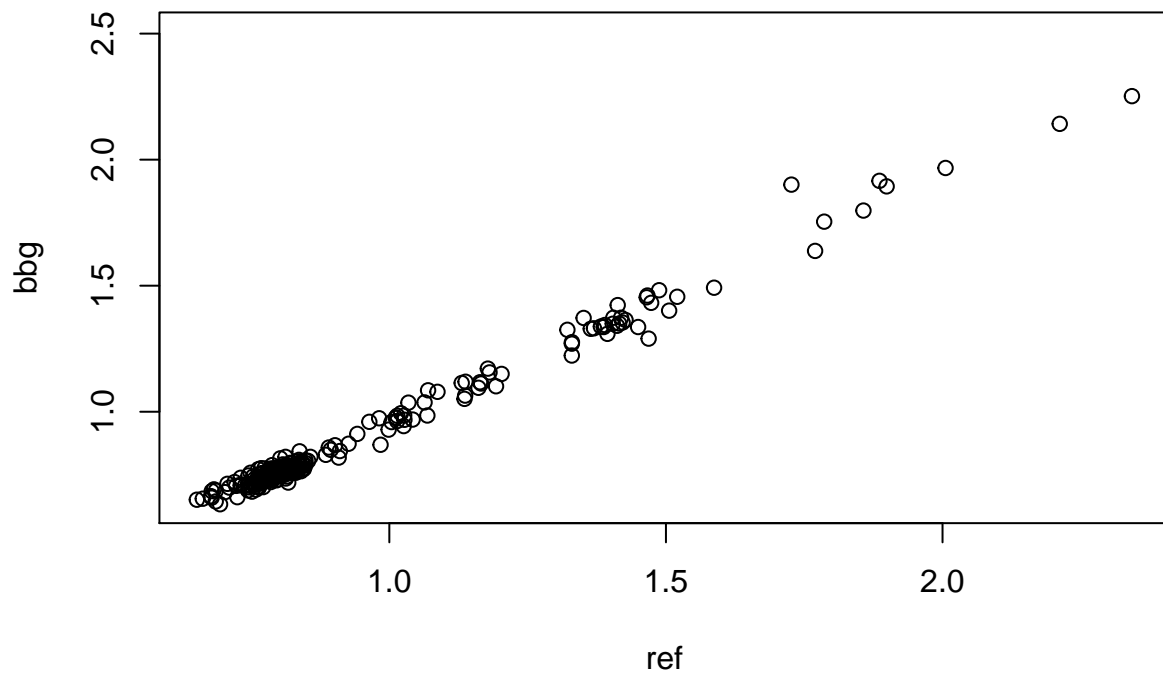
Comcast 5-year

```r
library(readxl)
data <- read_excel("C:/Users/ME/OneDrive/Desktop/Raw data/BBG-Eikon Comparison.xlsx")
```

```
## New names:
## * '' -> ...1
## * '' -> ...14
## * '' -> ...15
```

```r
ref = data$'Comcast 5Y Eikon'
bbg = data$'Comcast 5Y BBG'
bbg = as.numeric(bbg)
```
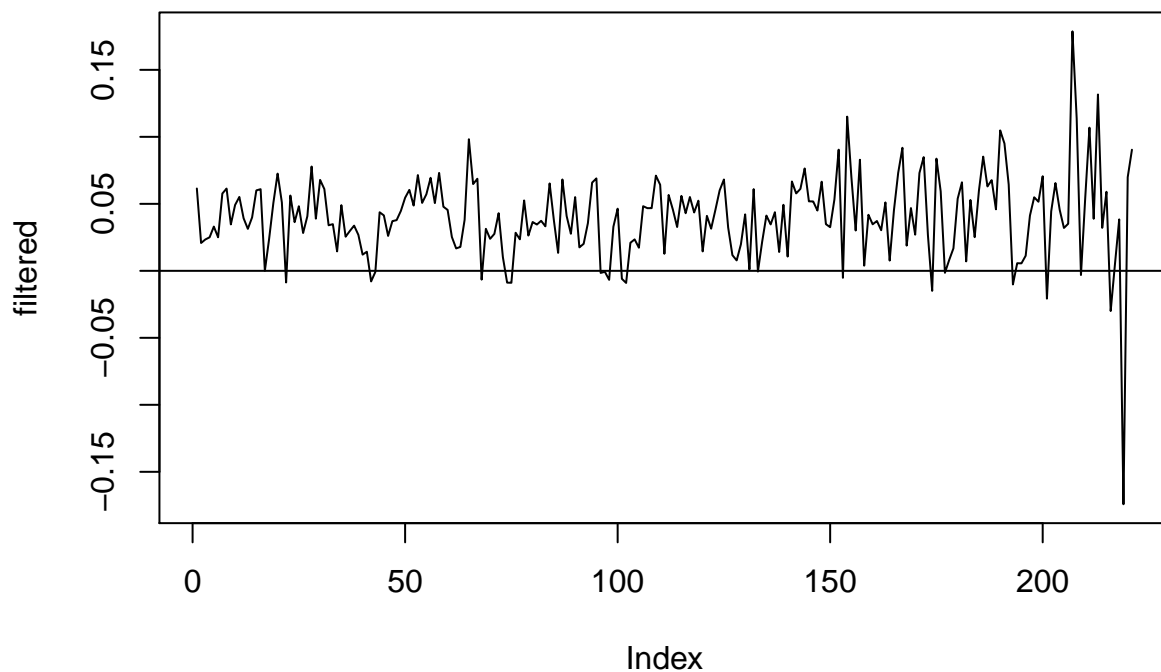
```
## Warning: NAs introduced by coercion
```

```r
plot(ref, bbg)
```

```
unfiltered = ref - bbg
filtered = c()
count = 0
for(x in unfiltered){
  if(!is.na(x)){
    filtered[count] = x
    count = count + 1
  }
}

plot(filtered, type="l")
abline(h=0)
```

```r
mean(filtered)
```

```
## [1] 0.04019101
```

```r
sd(filtered)
```

```
## [1] 0.03200724
```

```r
t.test(filtered, alternative = "two.sided", mu=0, conf.level=0.95)
```

```
##
##  One Sample t-test
##
## data:  filtered
## t = 18.667, df = 220, p-value < 2.2e-16
## alternative hypothesis: true mean is not equal to 0
## 95 percent confidence interval:
##  0.03594779 0.04443423
## sample estimates:
##  mean of x
## 0.04019101
```

```
cor(ref, bbg, use="complete.obs")
```

```
## [1] 0.9944029
```
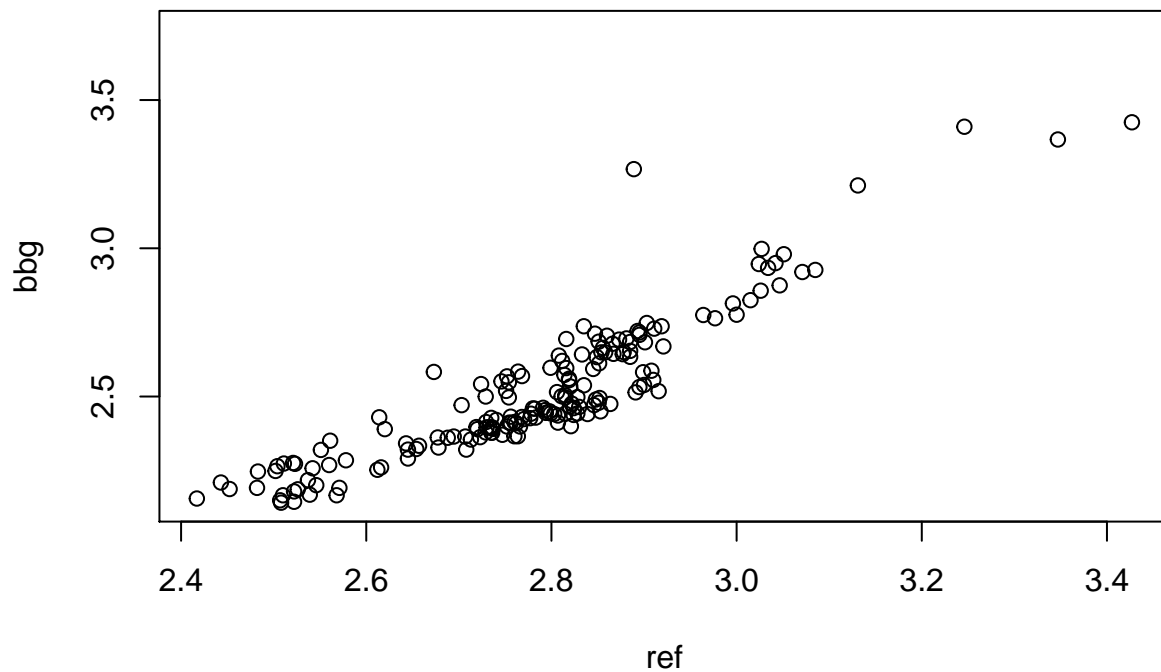
Intel 30-year

```
library(readxl)
data <- read_excel("C:/Users/ME/OneDrive/Desktop/Raw data/BBG-Eikon Comparison.xlsx")
```

```
## New names:
## * '' -> ...1
## * '' -> ...14
## * '' -> ...15
```

```
ref = data$'Intel 30Y Eikon'
bbg = data$'Intel 30Y BBG'
bbg = as.numeric(bbg)
```

```
## Warning: NAs introduced by coercion
```
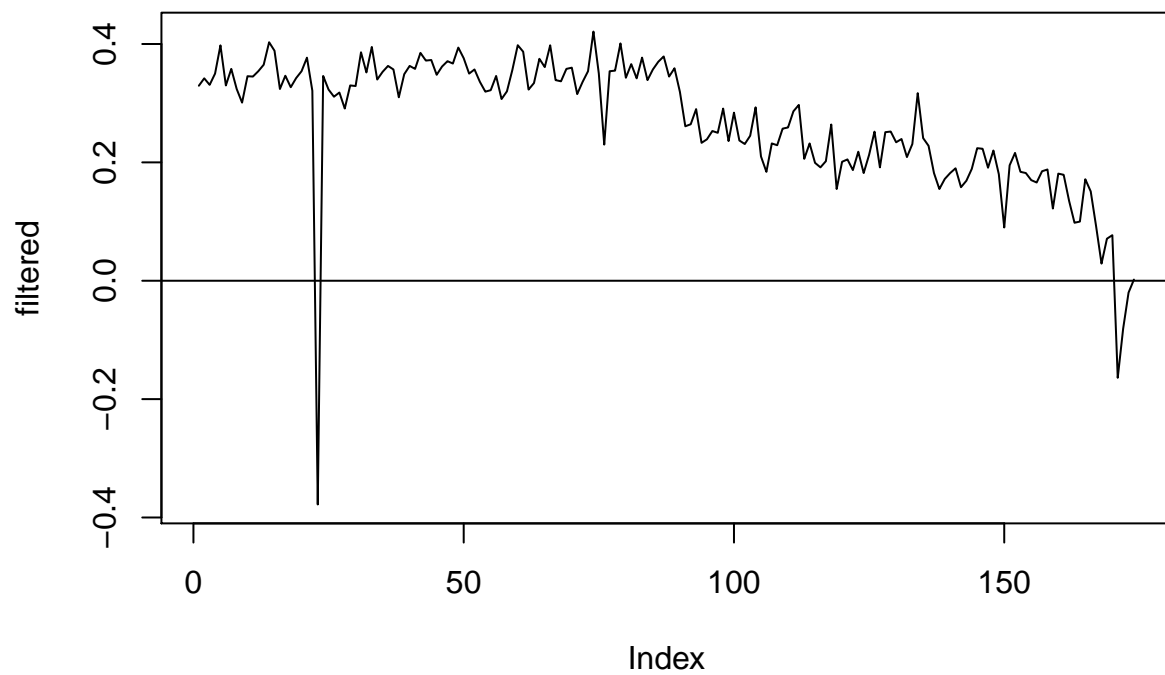
```
plot(ref, bbg)
```

```
unfiltered = ref - bbg
filtered = c()
count = 0
for(x in unfiltered){
  if(!is.na(x)){
    filtered[count] = x
    count = count + 1
  }
}

plot(filtered, type="l")
abline(h=0)
```



```
mean(filtered)
```

```
## [1] 0.2690443
```

```
sd(filtered)
```

```
## [1] 0.1110383
```

```
t.test(filtered, alternative = "two.sided", mu=0, conf.level=0.95)
```

```
## 
##  One Sample t-test
## 
## data:  filtered
## t = 31.961, df = 173, p-value < 2.2e-16
## alternative hypothesis: true mean is not equal to 0
## 95 percent confidence interval:
##  0.2524295 0.2856590
## sample estimates:
## mean of x
## 0.2690443
```

```
cor(ref, bbg, use="complete.obs")
```
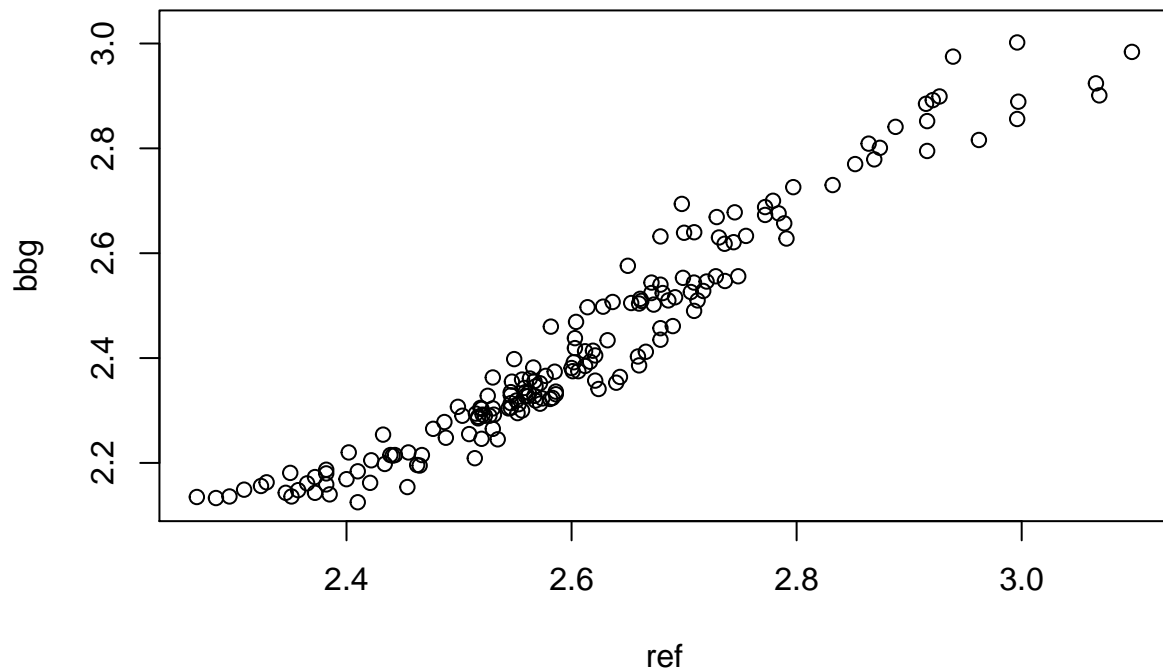
```
## [1] 0.9100821
```

Nike 30-year

```
library(readxl)
data <- read_excel("C:/Users/ME/OneDrive/Desktop/Raw data/BBG-Eikon Comparison.xlsx")
```

```
## New names:
## * '' -> ...1
## * '' -> ...14
## * '' -> ...15
```

```
ref = data$'Nike 30Y Eikon'
bbg = data$'Nike 30Y BBG'
bbg = as.numeric(bbg)
```
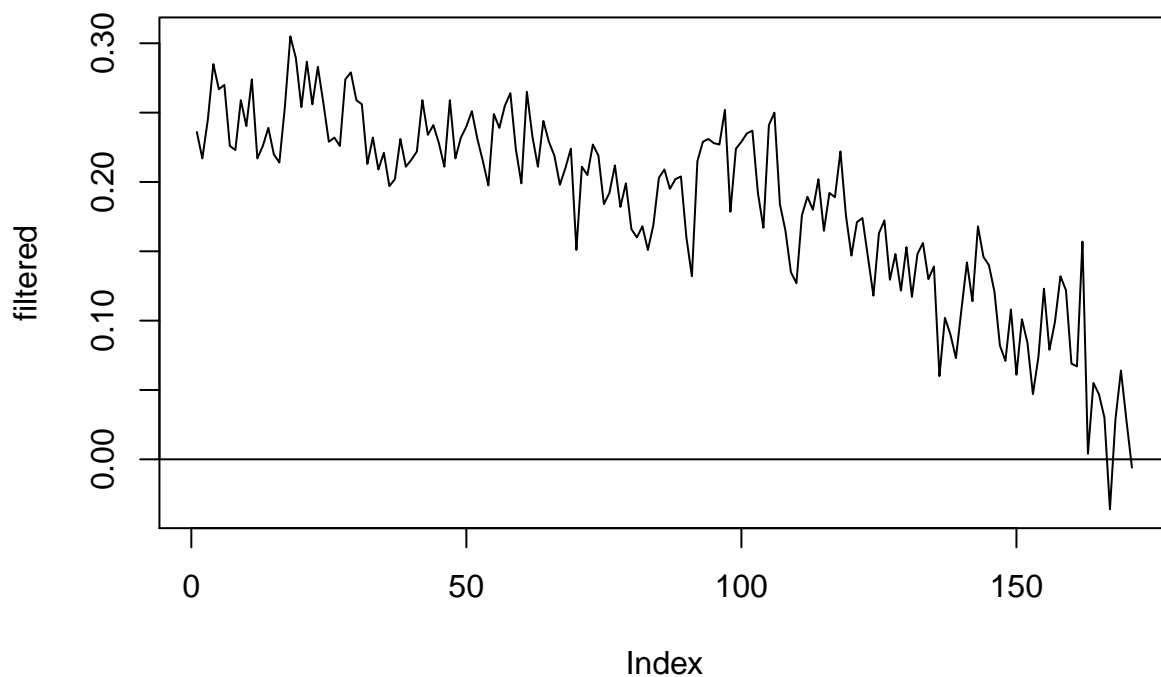
```
## Warning: NAs introduced by coercion
```

```
plot(ref, bbg)
```

```
unfiltered = ref - bbg
filtered = c()
count = 0
for(x in unfiltered){
  if(!is.na(x)){
    filtered[count] = x
    count = count + 1
  }
}

plot(filtered, type="l")
abline(h=0)
```

```r
mean(filtered)
```

```
## [1] 0.1839591
```

```r
sd(filtered)
```

```
## [1] 0.06760514
```

```r
t.test(filtered, alternative = "two.sided", mu=0, conf.level=0.95)
```

```
##
##  One Sample t-test
##
## data:  filtered
## t = 35.583, df = 170, p-value < 2.2e-16
## alternative hypothesis: true mean is not equal to 0
## 95 percent confidence interval:
##  0.1737536 0.1941645
## sample estimates:
## mean of x
## 0.1839591
```

```r
cor(ref, bbg, use="complete.obs")
```

```
## [1] 0.9670351
```
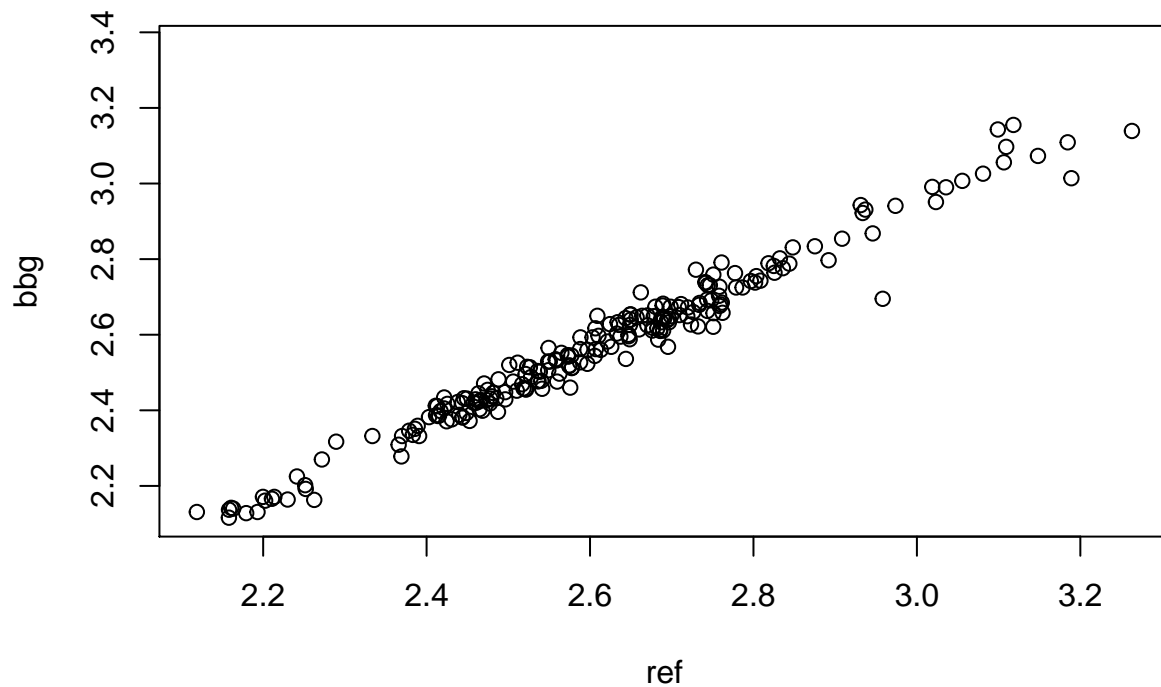
Comcast 30-year

```r
library(readxl)
data <- read_excel("C:/Users/ME/OneDrive/Desktop/Raw data/BBG-Eikon Comparison.xlsx")
```

```
## New names:
## * '' -> ...1
## * '' -> ...14
## * '' -> ...15
```

```r
ref = data$'Comcast 30Y Eikon'
bbg = data$'Comcast 30Y BBG'
bbg = as.numeric(bbg)
```

```
## Warning: NAs introduced by coercion
```
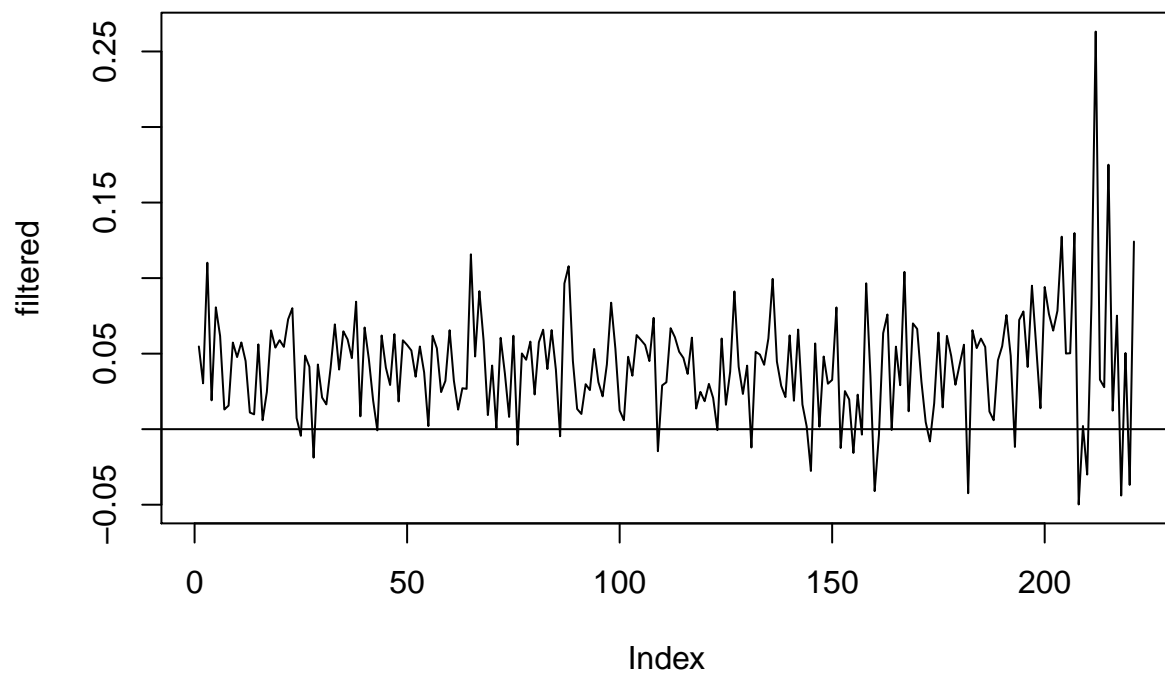
```r
plot(ref, bbg)
```

```
unfiltered = ref - bbg
filtered = c()
count = 0
for(x in unfiltered){
  if(!is.na(x)){
    filtered[count] = x
    count = count + 1
  }
}

plot(filtered, type="l")
abline(h=0)
```



```
mean(filtered)
```

```
## [1] 0.04190222
```

```
sd(filtered)
```

```
## [1] 0.03653537
```

```
t.test(filtered, alternative = "two.sided", mu=0, conf.level=0.95)
```

```
## 
##   One Sample t-test
## 
## data:  filtered
## t = 17.05, df = 220, p-value < 2.2e-16
## alternative hypothesis: true mean is not equal to 0
## 95 percent confidence interval:
##   0.03705870 0.04674574
## sample estimates:
##   mean of x
## 0.04190222
```

```
cor(ref, bbg, use="complete.obs")
```

```
## [1] 0.9854054
```